

CLAIMS:

We claim:

SUB A1

1. A method comprising:

organizing concepts according to their meaning into a
lexicon, said lexicon defining elements of a semantic space; and
providing a meaning differentiator in response to an input
query, said meaning differentiator presenting a set of concepts
from said lexicon that are related to said query.

2. A method according to claim 1 wherein said organizing
includes:

determining a semantic distance from a first concept and a
second concept, said semantic distance representing the closeness
in meaning between said first concept and said second concept;

and

determining the relationship between said first concept and
said second concept.

3. A method according to claim 1 further comprising:

presenting results of a search conducted on a target data
set in accordance with said set of concepts.

SUB A2

4. A method according to claim 4 wherein said search is
conducted by ranking elements of said target data set according
to conceptual relevance.

1 5. A method according to claim 3 further comprising:
2 refining said search results by filtering for desired
3 concepts from said set of concepts, said refined search results
4 excluding elements of said target data set pertaining to
5 undesired concepts.

1 6. A method according to claim 1 wherein organizing
2 includes:
3 attaching meanings to elements in a predefined data set.

1 SUB A3 7. A method according to claim 2 further comprising:
2 determining which meanings are closely related by defining a
3 radius of semantic distance about a given meaning and excluding
4 meanings falling in distances beyond said radius.

1 8. A method according to claim 2 further comprising:
2 attaching meanings to elements in a predefined data set; and
3 calculating scores for said elements according to the
4 semantic distance between meanings attached to said elements and
5 other meanings.

1 9. A method according to claim 1 wherein said meaning
2 differentiator includes a set of meanings that could be
3 interpreted of said query or portion thereof.

1 10. A method according to claim 1 wherein providing a
2 meaning differentiator includes interpreting at least a portion
3 of said query into specific meanings.

1 11. A method according to claim 10 further comprising:
2 enabling a user to select at least one meaning from said set
3 of meanings.

1 ³12. A method according to claim 1 wherein said elements are
2 related by a connection, said connections including a lateral
3 bind, a kind of and a part of.

1 ⁴13. A method according to claim ³12 wherein said connection
2 has an associated strength representing the degree to which said
3 elements are related.

1 ^{SUB A4}14. A method according to claim 2 wherein said meanings may
2 be marked as at least one of a geographical location, offensive,
3 unique instance, timely and a proper noun.

1 ⁵15. A method according to claim ⁴13 wherein said strength
2 from a first element to a second element may be different from
3 the strength from said second element to said first element.

1 16. A method according to claim 6 wherein said predefined
2 data set is the target data set.

1 17. A method according to claim 6 wherein said elements are
2 subject nodes and said predefined data set is a hierarchy of
3 subjects.

SUB A57

18. A method comprising:
2 organizing concepts according to their meaning into a
3 lexicon, said lexicon defining elements of a semantic space;
4 providing a meaning differentiator in response to an input
5 query, said meaning differentiator presenting a set of concepts
6 from said lexicon that are related to said query;
7 determining a semantic distance from a first concept and a
8 second concept, said semantic distance representing the closeness
9 in meaning between said first concept and said second concept;
10 determining the relationship between said first concept and
11 said second concept; and
12 presenting results of a search conducted on a target data
13 set in accordance with said set of concepts.

19. An article comprising a computer readable medium having
2 instructions stored thereon which when executed cause:
3 organizing concepts according to their meaning into a
4 lexicon, said lexicon defining elements of a semantic space; and
5 providing a meaning differentiator in response to an input
6 query, said meaning differentiator presenting a set of concepts
7 from said lexicon that are related to said query.

1 ~~20.~~ A method of searching a network of information sources
2 comprising:

3 receiving as input a search query; and
4 searching a semantic space for data pertaining to concepts
5 close in meaning to said search query.

1 ~~21.~~ A method according to claim 20 wherein searching
2 includes:

3 positioning data from said information sources into a
4 semantic space.

5 ~~22.~~ A method according to claim 21 further comprising:
6 enabling a user to select at least one meaning from said set
7 of meanings; and
8 refining the results of said search by excluding said
9 pertaining data that relates to undesired concepts, said
10 undesired concepts excluded by inputting said selected meanings
11 and searching said search results for the pertaining data that is
12 semantically close to said selected meaning.

1 ~~23.~~ A method according to claim 20 wherein said information
2 sources include documents

1 ~~24.~~ A method according to claim ~~23~~ wherein said documents
2 include documents accessible via the world-wide web.